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ABSTRACT

This monograph reviews the role played by public policy in the education of gifted students. It describes the special rule making in identification, placement, program, and accountability. These rules emerge from legislation, court decisions, administrative rule making, and professional standards. Special problems involving racial discrimination, acceleration, teacher supports, and parental options are discussed. Tensions raised by the two competing American values of equity and excellence are addressed. Five policies are recommended for fulfilling the nation's commitment to educating gifted students: (1) the development of multidimensional protocols for identification of gifted students; (2) the mandating of greater participation of minority students in programs for gifted students; (3) greater support for efforts to develop curricula for gifted students that are differentiated from the general curriculum; (4) development of evaluation procedures that focus on improved student performance on high-level tasks; and (5) more support services for teachers working with gifted students. (Contains 81 references.) (DB)

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THE NATIONAL RESEARCH CENTER ON THE GIFTED AND TALENTED

Senior Scholars Series

University of Connecticut
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Society's Role in Educating Gifted Students: The Role of Public Policy

James J. Gallagher
University of North Carolina
Chapel Hill, North Carolina

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THE NATIONAL RESEARCH CENTER ON THE GIFTED AND TALENTED

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University of Connecticut
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2131 Hillside Road Unit 3007
Storrs, CT 06269-3007

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This monograph reviews the role played by public policy in the education of gifted students. It describes the special rule making in identification, placement, program, and accountability. These rules emerge from legislation, court decisions, administrative rule making, and professional standards. Special problems involving racial discrimination, acceleration, teacher supports, and parental options are discussed. The monograph ends with five new policies the author believes are needed to fulfill our commitment to educating gifted students.

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Chapel Hill, North Carolina

EXECUTIVE SUMMARY

Social policy sets the rules and standards by which we provide special education experiences for gifted students. Despite its importance in shaping our programs, the creation or development of educational policies are often ignored by working educators who see the creation of policies to be far distant from their responsibilities or their own influence.

Yet, policies determine major elements of the program such as (a) *Who receives the special resources?*—the eligibility question, (b) *Who delivers the resources?*—the teacher qualification issue, (c) *What are the resources to be delivered?*—the nature of a special program, and (d) *What are the conditions under which the resources are delivered?*—service delivery parameters. It is important therefore to review how policies come to be made and implemented. There are four major sources of educational policies that are our concern:

Legislation. State or federal legislation sets standards. The small amount of federal legislation that exists is under the Javits law that provides research and demonstration money, and supports a National Center for Research on Gifted and Talented. Almost every state mentions gifted students in their legislation and about half link gifted students to the laws governing exceptional children.

Courts. Court decisions in gifted education are mainly at the local or state level. There have been a number of court cases charging local systems with discrimination because of the small number of minority students found eligible for these services. The Office of Civil Rights has been brought into such cases but has been supportive of the schools that have shown concern for the issue of minority student participation.

Administrative Rules. The broad general guidelines established through legislation and court decisions have to be fleshed out with many details to make them operational for the schools. These rules are often as influential to program operation as are the court and legislation initiatives.

Professional Standards. Standards for specialists in gifted education have been promulgated by both the Council for Exceptional Children and the National Association for Gifted Children. These standards should guide the development of professional preparation experiences for teachers.

There are two competing American values, *equity* and *excellence* that have shaped the education of gifted students. Those who support the value of equity stress the equal access to such services by minority children and families and may oppose even the idea of educating gifted students as contrary to equity principles.

Those who support attention to the value of excellence point to the individual accomplishments of inventors, scientists, artists, political leaders, etc. as essential contributions to our society. Efforts at excellence may be seen in the Advanced Placement

Programs, Honors Courses, and magnet schools. It has been pointed out that the students in the United States do not do well in international academic competition and supporters of the value of excellence would like more attention paid to finding and nurturing outstanding talent.

Four major policy issues remain to be dealt with: (a) *Race*—there is the concern that we may be overlooking major talent in minority populations, (b) *Acceleration*—why do we not utilize more rapid movement of gifted students through their lengthy education despite positive research results, (c) *Support systems*—their general absence in education, and particularly for teachers of gifted students, and (d) *Expanding parental preferences*—parents now have more options than the often recalcitrant public schools for educating gifted students. These options include magnet schools, vouchers, and home schooling.

Some additional policies that would help the education of gifted students:

1. developing multidimensional protocols for identification of gifted,
2. mandating greater minority participation in programs,
3. organizing greater support for efforts to develop differentiated curricula from the general program,
4. developing evaluation procedures that focus on improved student performance on high level tasks,
5. providing more support services for teachers working with gifted students.

The ambivalence of the American society to gifted students is reflected in the incomplete and sometimes contradictory educational policies reviewed in this monograph. The increasing demands of a complex technological and information society may settle the issue, since we will need all the intellect we can muster from the society to meet the challenges of the 21st century.

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Society's Role in Educating Gifted Students: The Role of Public Policy

James J. Gallagher
University of North Carolina
Chapel Hill, North Carolina

Why write or read a book on educational policy and gifted children? What purpose does it serve? How does it get us closer to our goal of maximizing educational opportunities for gifted students? Many people have to be reminded that these policies often place boundary lines around the program and determine what is permissible and what is not in the education of such students.

The policies of local school districts and of state departments of education often determine the educational fates of many gifted children. Sometimes these policies have been written for children in general and sometimes they are directed at gifted students specifically. Sometimes these policies represent the latest in our understandings about these students and sometimes they may be 30 years out of date.

The policies and rules that affect gifted children need to be of deep concern to teachers and parents. For gifted students, educational policies can either be freeing and uplifting, or restrictive and stultifying. When we realize that fundamental fact then we should be able to shine a spotlight on educational policies and learn where they came from, whose interests were being expressed by these policies, and the assumptions upon which they were based (Tannenbaum, 2000).

Despite the importance of the topic many teachers and parents act as though they believe that educational policy has little to do with them, or their central concerns. These policies, they believe, are created by powerful people geographically and psychologically distant from them, and result in abstract rules and obscure language that does not concern them or the children who are their main interest. These feelings of distance and helplessness between themselves and policy are evident whenever public policy is discussed at conventions or conferences. Such topics rarely bring out more than a handful of people, while many conference attendees flock to the newest "thinking skills" presentation.

What Is Social Policy?

So what is this social policy that is so important, yet so boring, to parents and educators? The definition of social policy that will be used in this monograph will be as follows:

> SOCIAL POLICY CREATES THE RULES AND STANDARDS BY WHICH SCARCE RESOURCES ARE ALLOCATED TO MEET ALMOST UNLIMITED SOCIAL NEEDS. (Gallagher, 1994, p. 337)

An effective social policy should answer the following questions:

1. WHO RECEIVES THE RESOURCES? The first question deals with the issue of *eligibility*. Which *children* will be identified as gifted *students* and become eligible for available special educational services? This will determine who will receive needed differential services.

2. WHO DELIVERS THE RESOURCES? The second question in the definition concerns *teacher qualification*. Who has the credentials necessary to provide a special educational experience for gifted students? Should they have sophistication

in content such as mathematics or should they be experts in using instructional strategies such as problem-based learning, or both?

3. WHAT ARE THE RESOURCES TO BE DELIVERED? The third question deals with the special resources that would be provided. Would you provide for this student an advanced mathematics program, special computer lessons, or an advanced creative arts curriculum?

4. WHAT ARE THE CONDITIONS UNDER WHICH THE RESOURCES ARE DELIVERED? The fourth question describes the limits or parameters to the resource delivery. Can the resources be delivered in homogenous or heterogeneous settings, in a special class or a special school, or a Charter School? Could these resources be delivered at home?

Taken together, the answers to these four questions should provide a portrait of who the gifted students are, who their teachers are, what the nature of their special programs are, and where their programs are being carried out.

Two Families

Let us see how such a definition can affect two gifted students and their families. Mr. and Mrs. Jenkins are concerned about their child, Julie, who has shown superior educational aptitude since she was very young. The policies in their school district will determine whether she is identified as gifted, what the qualifications of her teachers will be, and the kind of program she will be enrolled in. The Jenkins are now faced with a series of decisions. Should Julie join a special class, enroll in an accelerated mathematics program, think about taking Advanced Placement courses, be moved ahead a grade? Above all, Mr. and Mrs. Jenkins and Julie must ask who made all of these rules and regulations that govern all of these activities, where did these rules come from, and what justification do they have as applied to Julie's needs.

Mr. and Mrs. Alvarez have a different problem. They know that their son, Juan, is a bright boy who learns quickly and is bored by the slow pace of lessons. They worry about whether he will qualify for all of the special opportunities that might be given to Julie. Since English is a second language to Juan, will he be able to do well on the tests that seem to determine admittance to these opportunities? The Alvarez family, too, wonders who made up these rules and for what purpose?

The truth is that, in many cases, these rules or policies were constructed some time ago and the existing staff might not even know where they came from or the assumptions upon which they were based. Yet, these policies will shape a great deal of what happens to Julie and Juan, so it is important to understand why and how they were constructed and whether they should be continued or changed.

Where Do Policies Come From?

Public policy for gifted students, like policy for any group of students, comes from four main sources: *legislation*, *court decisions*, *administrative rules* (at local, state or federal level), and *professional standards*.

Legislation

By far the largest amount of legislation concerning the education of gifted students has been found at the State level. This has largely been true because the states have traditionally been considered to have the major responsibility for education in this country. Practically every state has some language in their education legislation that deals with gifted students (Karnes, Troxclair, & Marquardt, 1997; Stephens & Karnes, 2000).

In 22 states, gifted students are included in the broad category of *exceptional children* (Baker & Friedman-Nimz, 2000). This placement in the division of exceptional children has been both a benefit and hindrance to programs for gifted students. The benefit rather clearly comes from the budget that has been made available through the general category of exceptional children. This budget has been mainly targeted to children with disabilities, but programs for gifted students have profited from raises in budgets that were directed primarily for students with disabilities. Almost all of the states with the largest budget for gifted students also have that program tied to the broader area of exceptional children (e.g., Florida, Georgia, North Carolina).

In other states, programs for gifted students may be administered in the state department of education under *curriculum* or *school psychology*, or other sub-departments largely because of history and local conditions. Such programs for gifted students have not done nearly as well financially as those in special education.

On the other hand, programs for the gifted students in special education have had to follow the rules of special education even when they do not seem to provide a good fit for programs for gifted. For example, there is a federal requirement that each child in special education has an Individual Education Program (IEP) designed for him or her. This may or may not be a good idea for the vast majority of gifted students, but does put considerable pressure on the schools to comply with this standard for these students, as well as for those children with disabilities for whom the IEP provision was originally designed. The sheer number of IEPs that have been mandated as well as the time involved in constructing them has been a substantial burden for special educators (Gallagher & Desimone, 1995).

The one piece of identifiable legislation at the federal level for gifted students has been known as the Javits Act passed in 1988 (Jacob K. Javits Gifted and Talented Students Education Act of 1988). The law and its regulations put some specific requirements on the use of the small amount of funds ($11.25 million in 2002) available under this act with the emphasis on underserved populations such as economically disadvantaged, children of limited English proficiency, culturally diverse children, etc. In this regard, it has been a stimulus for increased efforts on behalf of gifted students from these special populations.

The Javits Act has also established a National Research Center on the Gifted and Talented (NRC/GT). The National Research Center on the Gifted and Talented is a collaborative effort of the University of Connecticut, The University of Virginia, Yale University, 54 state and territorial departments of education, over 365 public and private schools, over 135 content area consultants, and stakeholder representing professional organizations, parent groups and businesses (Renzulli & Gubbins, 1997).

Table 1 indicates a range of activities that might be supported by the Javits funds for gifted education. This admirably diverse menu of desirable support activities includes personnel preparation demonstration of model programs, programs of technical assistance, and the implementation of innovative strategies. This array would be more impressive if backed by substantially greater funds than the puny $11.25 million now allocated to be spent on a countrywide basis.

Table 1

Purposes of Javits Legislation (PL 107-110)

USE OF THE FUNDS. Programs and projects assisted under this section may include each of the following:

(1) Conducting-
  (A) Scientifically based research on methods and techniques for identifying and teaching gifted and talented students and for using gifted and talented programs and methods to serve all students; and
  (B) Program evaluations, surveys, and the collection, analysis, and development of information needed to accomplish the purpose of this subpart.

(2) Carrying out professional development (including fellowships) for personnel (including leadership personnel) involved in the education of gifted and talented students.

(3) Establishing and operating model projects and exemplary programs for serving gifted and talented students, including innovative methods for identifying and educating students who may not be served by traditional gifted and talented programs (such as summer programs, mentoring programs, service learning programs, and cooperative programs involving business, industry, and education).

(4) Implementing innovative strategies, such as cooperative learning, peer tutoring, and service learning.

(5) Carrying out programs of technical assistance and information dissemination, including how gifted and talented programs and methods, where appropriate, may be adapted for use by all students.

(6) Making materials and services available through State regional educational service centers, institutions of higher education or other entities.

(7) Providing funds for challenging, high-level course work, disseminated through technologies (including distance learning), for individual students or groups of students in schools and local educational agencies that would not otherwise have the resources to provide such course work.

Source: No Child Left Behind Act of 2001: The Reauthorization of the Elementary and Secondary Education Act (PL 107-110) Subpart 6 – Gifted and Talented Students, p. 403.

Similar federal legislation that would add additional funds for states to add support services for gifted education (Originally H.R. 490, Gifted and Talented Students Education Act of 2001) was included as a section in the omnibus Elementary and Secondary Education Act Amendments (PL 107-110). This provision was approved on the Senate side but not in the House version and was removed in conference committee. It is likely that we will see similar legislation proposed sometime in the near future.

The mission of The National Research Center on the Gifted and Talented is to plan and conduct theory-driven quantitative and qualitative research that is problem-based, practice-relevant, and consumer-oriented. The mission includes a broad-based dissemination function, and the

formation of a nationwide cooperative of researchers, practitioners, policy makers, and other persons and groups that have a stake in the psychology and education of high-potential youth from preschool through post-secondary levels. Emphasis is placed on identifying the needs of economically disadvantaged youth, individuals of limited English proficiency, individuals with handicaps, and other special populations that have been traditionally underserved in programs for gifted and talented students (Renzulli, Reid, & Gubbins, 1993).

Court Decisions

Other major sources of policy statements or clarifications are court decisions. There seems to be a general assumption that there has not been major court activity in gifted education but this is because the disputes have mainly been handled at the state level and are not very visible nationwide (Karnes & Marquardt, 2000).

There have been attempts to associate programs for gifted students with federal legislation (Individuals with Disabilities Education Act -IDEA), or federal court decisions but these have largely failed, leaving a miscellaneous set of decisions that seem to be determined by local circumstances rather than broad legal principles.

The Office of Civil Rights (OCR) has been drawn into various actions against school systems based upon the observed limited participation of children from minority groups in programs for gifted students (Gallagher & Gallagher, 1994). More than half the findings made by OCR were in favor of the local schools when the charge was discrimination against minority students and families. The key element in most of these cases appeared to be whether the local schools took definitive steps to insure that the procedures they were following for identifying or placing gifted students were free of discriminatory actions or rules (Karnes, et al., 1997).

When there is a dispute between family and school, it is recommended that the dispute should be settled at the lowest level possible through mediation or negotiation. This would mean to start with mediation, move on to a due process hearing and only then, when there seems to be no resolution, consider a full scale court case, which almost always leaves behind empty purses and hard feelings.

Administrative Rules

Another major source of policy statements are the administrative rules that are established by local schools or by state departments of education. For example, a rule that states that no child can enter kindergarten prior to his/her fifth birthday. Such a rule would interfere with the early admission to school of a 4-year-old gifted student who had clearly shown the intellectual capabilities and social maturity of a much older child. Many parents looking for a place for their bright child who may already be reading or doing arithmetic at a third grade level can be frustrated by such a rule. Local schools can establish their own criteria for eligibility to a local program for gifted students as long as it does not conflict with state rules or state law. Rules about identification or placement in special programs for gifted students can be a source of difficult relationships between parents and school. For example, a special accelerated mathematics program may require previous outstanding performance in math as a prerequisite for program entry. Such rules might keep a minority gifted child, such as Juan, out of the program and so become a contentious point that might bring the OCR into the situation.

Professional Standards

Many professional groups want to set their own rules as to how gifted students should be treated. The National Association for Gifted Children (NAGC) has developed a series of rules about professional standards related to such dimensions as teacher certification or ability grouping.

Such rules, with the weight of a professional organization behind them, can influence or change local or state regulations. While many schools are considering inclusion as a policy for gifted students, as well as students with disabilities, this policy of *inclusion* is in conflict with the set of standards agreed upon by the NAGC, as follows:

> NAGC maintains that gifted students, like other children with special needs, require a *full continuum of educational services* to aid in the development of the students' unique strengths and talents. One such option in that continuum of services of gifted students can be the regular classroom (inclusion). In such an inclusive setting there should be well-prepared teachers who understand and can program for these gifted students, and sufficient administrative support necessary to help differentiate the program to their special needs. (Landrum, Callahan, & Shaklee, 1999)

Such a statement reveals a consensus of educators for the gifted that runs contrary to the policy of *inclusion* for gifted students (planning them in the regular classroom) and can strengthen the will of educators to resist the inappropriate use of inclusion.

The Association for the Gifted (TAG), a division of the Council for Exceptional Children (CEC), has also produced a set of standards that lists the fundamental knowledge and skills that should be possessed by special education teachers of students with gifts or talents. This section has become a part of a larger publication of *What Every Special Educator Should Know* (CEC, 2000), which contains the standards for each area of exceptional children. The nine major categories included in gifted education extend from philosophy to assessment to instructional content and practice, to planning and managing the teaching and learning environment. Examples of items under Instructional Content and Practice would be as follows:

Knowledge Needed

K1. *Research-supported instructional strategies and practices (e.g., conceptual development, accelerated presentation pace, minimal drill and practice) for students with gifts and talents.*

K2. *Sources of specialized materials for students with gifts or talents.*

Skills Needs

S1. *Design cognitively complex discussion questions, projects and assignments that promote reflective, evaluative nonentrenched thinking in students with intellectual or academic gifts and talents.*

S2. *Select instructional models appropriate to teaching topics, content area or subject domain.*

The set of these nine categories represents a comprehensive portrait of the specialized knowledge and skills expected of a specialist in this area of educating gifted students.

Does Policy Shape Program or Program Design Shape Policy?

It does not take much reflection to see that both of the above propositions are true at one time or another. Policies, after all, are merely social hypotheses of how humans will behave given certain circumstances and stimulation. They are based upon our current knowledge. We assume that if we establish a policy of conducting advanced math programs for bright students that we will improve their mathematics performance and their interest.

If we provide resources for a creative writing program or attempt to improve the performance of gifted underachievers, we have some assumptions that we are making that by providing trained personnel and an intense focused program these will result in improved

performances for the students affected. While these propositions seem sensible, we don't really know if they are true or not unless we test them. What seems reasonable to one generation may sound absurd to the next one. We need always to remember the tentativeness of our "truths."

Perhaps one of the most egregious errors in the use of public policy in human affairs came from a Supreme Court decision handed down by famous Justice Oliver Wendell Holmes who proudly announced in 1927 that "three generations of imbeciles are enough" in supporting the sterilization of women with mental retardation. Justice Holmes' policy statement was dependent upon the science of the day that stated that mental retardation was inherited. We now know that the situation regarding mental retardation is much more complicated by environmental-genetic interaction and few attempts are made today to sterilize women who are suspected to be mentally retarded (Baumeister, 1970).

An important lesson that one can take from that erroneous sterilization policy, however, is that once policies are made and put down on paper, policies remain until someone changes them. Consequently, there are some states that still have laws on the books allowing for the sterilization of women even though they are never used. The same principle holds for policies on gifted children established in the 1970s, they continue until someone changes them.

The following is another example of a "Truth" that we act on today. It has also long been thought that intelligence had been distributed in the society in the form of the normal curve, with many students expected to score around the average of 100 IQ score and fewer and fewer students expected to obtain extreme high or low IQ scores. This "normal curve" distribution of scores was another reason for assuming that "intelligence" was a biological property of the individual, since other characteristics such as height and weight formed similar normal curve distributions.

However, we now have evidence that intelligence scores do *not* form a normal distribution, certainly not at the extreme ends (Robinson, Zigler, & Gallagher, 2000; Silverman, 1997). Few children score below an IQ of 70 without some pathological cause being present. Also there seem to be many more youngsters at the top end of the distribution (scoring over 140 of IQ) than would be expected on the basis of a normal curve distribution. The number of gifted children at the upper reaches of intelligence has been estimated to be six or seven times what would be expected by a normal curve distribution.

When we combine this discovery with other investigations that suggest that entire populations of countries are performing better on tests of ability than a generation before (Flynn, 1999), we now must confront the notion that IQ scores are not fixed for an individual or a society, but can be improved with education and experience (Perkins, 1995). We are not limited in the number of highly intelligent students we can produce but have, as a prospect, a gradually increasing supply of highly intelligent people, if we are wise enough to create the conditions for the development of such high intelligence! What policies should we now consider that would encourage the enhancement of intelligence?

Equity vs. Excellence: Competing American Values

Public policy almost invariably reflects some of the fundamental values of the American society and this is particularly true of the policies dealing with gifted students. For many years, there has been a tug-of-war among various advocates between the key values of *equity* and *excellence*.

On one hand our society values fair and equal treatment of all students and we are repelled by suggestions that favoritism is taking place in the division of resources to school systems or in

the admittance of students to higher education. We are also keenly aware that some groups in our society (e.g., Native Americans, African Americans, children with disabilities) have been often denied their right to a free and equal or appropriate public education. Such realization stirs feelings of resentment about any sign of favoritism. One sign of favoritism has been seen as giving special privileges to the gifted students who *already* may be performing well in school and elsewhere. This has resulted in opposition to special programming or services for gifted students on the grounds that it violates our value of *equity* (Margolin, 1996; Oakes, 1985; Sapon-Shevin, 1996).

On the other hand, there also is a fundamental commitment in our society to great achievement, to *excellence*, and we honor the individual contributions of scientists, captains of industry, and artists, particularly those who have struggled against great odds to achieve (e.g., Abraham Lincoln, Helen Keller). Much of the current standing of the United States in the world has been attributed to an educational system that encouraged, or at least allowed, the emergence of greatness and excellence in our citizenry.

It is clear from our earlier discussion concerning the nature of public policy, that these two movements, *equity* and *excellence*, would be in conflict over the "allocation of scarce resources." The pendulum favoring programs and services that reflect one value or another has swung from side to side depending upon what other forces were influencing the society at the moment, but both values of *equity* and *excellence* are always there in the schools.

The value of equity comes into play when persons insist that programs for gifted students contain the same proportion of minority students as their prevalence in the larger society, despite any other criteria for membership. This can force the schools into looking more intensely for gifted students who do not fit the common standard, but who have outstanding capabilities in some areas.

The value of excellence comes into play when we are picking students for the National Honor Society, or the school chorus, or for state competition in soccer or basketball. Under these circumstances it is performance, not aptitude, that counts the most. The older the student becomes the more important performance becomes as a criteria for membership in advanced classes, honors programs, and other evidences of academic excellence.

Establishing the Basis for Priorities

One of the basic values that has driven educational policy in the United States has been the principle of *vertical equity*, which requires the "*unequal treatment of unequals in order to make them more equal.*" The application of these policies and the budget priorities that go with them, can be seen in programs such as Head Start, Title I, Children with Disabilities, etc. This basic drive to societal equity accepts the proposition that there is unfairness in the society and that it is one of the purposes of public policy to try and even the playing field so that all citizens, particularly children who had no part in creating the uneven circumstances themselves, have a fair chance in life (Kirk, Gallagher, & Anastasiow, 2000).

The commitment to equity is a major part of the American public schools and it has driven the initiation of programs for children with disabilities or children from economically disadvantaged circumstances, but where does that leave the gifted child? We don't want our commitment to equity to hold the gifted child back to the norm of the class.

For the gifted student, excellence is the value we wish to stress. We need their excellence to result in achievements such as the discovery of DNA, or new cures for disease, or new applications in the arts or computer science. The arguments for public policy support for gifted students recognize the potential social and scientific contributions that such students can make for a future society.

Baker and Friedman-Nimz (2001) have suggested a companion term to *vertical equity* and that is *horizontal equity*, which states that students with comparable education needs should receive comparable education services. Such a principle of horizontal equity in the education of gifted students would be violated if the same services that are provided to gifted students in suburban systems are not available for gifted students in rural or disadvantaged districts. This is obviously the case so the principle of horizontal equity is being violated in many places across the country.

Each of us has an interest in the development of schools of *excellence*, such as medical schools or law schools, since we might need a good surgeon or a good lawyer some day and we naturally want the very best. The difficulty with this argument for the supporters of excellence is that it is hard to project the bright 10-year-old into the future scientist or medical researcher that will bring new benefits for all of us. It is consequently hard to convince public decision makers to expend scarce resources *today* on this gifted child's education so that there will be greater benefits to our society sometime in the *future* (Gallagher, 2000).

Another argument that we need to support *excellence* in the public schools is our academic competition with other nations. When the rocket scientists in the Soviet Union launched Sputnik in 1957, great concern suddenly emerged that we were not supporting excellence in science in our country. There followed a decade of expenditures designed to bring us back into a competitive position with the Soviet Union in space.

This approach to public policy was sometimes referred to as "The Russians are Coming; The Russians are Coming," since this threat from abroad strengthened the school programs designed to support excellence and outstanding accomplishment in the schools. The decline of the Soviet Union as a world power has lessened the usefulness of this argument for receiving special funds for gifted students from public policy actions (Gallagher & Gallagher, 1994).

A further variation on this approach is to compare the performance of American students against students from other countries in this new information age of the 21st century. Demands for excellence and continued leadership in the world will require our gifted students and all of our students to perform in the top rank in all academic subjects if the United States is to maintain its current position in the world. Certainly, such international comparisons have been bringing bad news to the American public over the last two decades (Stevenson, Lee, & Chen, 1994; U.S. Department of Education, 1998).

Policies That Impact Programs

What policies can we consider that can encourage the enhancement of intelligence? How are gifted students defined? Some current policies applied to gifted education are based upon assumptions about the concept of intelligence, and high intelligence, that are now no longer accepted by the scientific community. The earlier investigators of gifted children and adults (Galton, Terman, Hollingworth) were highly impressed by the genetic component of intelligence and concluded that giftedness was a characteristic that you were born with because of favorable genes. They believed that intelligence unfolded over time, influenced by environment only under the most extreme conditions. Further, they understood that this characteristic of intelligence could be measured by IQ tests and the results be used for educational decision making on matters of gifted education (Plomin, 1997). Some educational policies were established based upon this assumption. An IQ score fixed the eligibility for a program of gifted education (IQ 130+) and those students who made that score were considered gifted with no need for any future measurement.

Those *students* who did not make the magical cut off IQ score of 130 were considered to be "not gifted." Retesting for program eligibility was considered only if it was suspected that the tests

had not been administered properly, never on the presumption that future good education would help the children grow to the accepted IQ standard. Such an assumption about the hereditary nature of intelligence has outraged minority groups who quickly observed that if a lower percentage of their students reached the appropriate level to be called gifted, this could be considered as evidence of group inferiority in intelligence (Frasier, 1997).

Since these policies supporting gifted education are directed to a subpopulation in the schools and are not available to all students, the first key policy decisions is, "Who is eligible for these special services?" Some educators regret the extensive time and resources spent on determining eligibility instead of on the design of a differentiated program itself.

There has been a gradual change in our definition of gifted students over the past few decades, with a lesser emphasis on IQ scores and a greater emphasis on a multidimensional set of abilities to be discovered by multiple means (Clark, 1998). The definition of gifted students most widely accepted appeared in the report on *National Excellence*.

> Children and youth with outstanding talent perform or show the potential for performing at remarkably high levels of accomplishment when compared with others of their age, experience, or environment. These children and youth exhibit high performance capability in intellectual, creative, and/or artistic areas, possess an unusual leadership capacity, or excel in specific academic fields. They require services or activities not ordinarily provided by the schools. Outstanding talents are present in children and youth from all cultural groups, across all economic strata, and in all areas of human endeavor. (Ross, 1993)

Note that there is a broader scope to this definition of giftedness than was true of past definitions. The current definition recognizes that outstanding talents can and should be found in all ethnic groups. Also, there is recognition with this definition that special educational services will be *required* if we expect these students to reach their expected level of educational attainment.

Perkins (1995) has presented three competing paradigms or models that have all purported to represent "intelligence" in the past.

- **Neural Intelligence:** A kind of neural efficiency composed of the speed and precision of information processing in the neural system.
- **Experiential Intelligence:** The knowledge we gain through extended experience in academic areas like physics, or nonacademic areas such as raising a family.
- **Reflective Intelligence:** The presence of thinking strategies, a positive attitude towards investing oneself in good thinking and metacognitive awareness, and management of one's own mind.

According to Perkins, all of these paradigms are partially correct so now we have the task of combining them to create a new and more adequate paradigm or model of intelligence. We can also note that the presence of *experiential intelligence* and *reflective intelligence* both mean that experience and education can play a meaningful role in the final intellectual development and functioning. While we have previously believed that there was a set proportion of children who would fall into the "gifted" category (the neural intelligence model), we now see that the limits of high intelligence have yet to be discovered, so we can create experiences and design environments to enhance this intellectual ability (Sternberg, 1997). While many states have changed their definitions or identification procedures, many others may still rely on older rules that were established when we believed in neural intelligence as the basis for policy (Karnes, et al. 1997).

But *rules* and *standards* can also be established that affect the nature and delivery of the program for gifted students. How can the program for general education be adapted for the special

needs of gifted students? There are four general ways that policies can influence the program. They can modify:

Where the educational services are delivered.
What the curriculum content is that is to be delivered.
What the skills are that the gifted students learn.
The nature of support services to the teacher of gifted students.

Where the Educational Services Are Delivered

Policies can be set at a state or local level, which determine where the special services can be delivered. The development of the "Advanced Placement Program" in the secondary schools by the College Board, for example, requires the establishment of special classes and a specific curriculum presented to receive the special credit that can earn college credits (Advanced Placement Program, 1994). In this case, the rules and standards are not being set by a legislature, or the courts, but by an independent organization providing opportunities for the schools and then setting the conditions under which these opportunities are approved.

The general dissatisfaction of parents of gifted students with the status quo of public education has led to the development of several alternative environments for educating gifted students. *Charter schools* (schools that are freed from the bureaucratic regulations of the regular schools) have been one strategy in which parents of gifted students have tried to gain more decision-making control over the school program (Pipho, 2000).

Another device is *magnet schools*, so called because they present a visible program in certain education areas such as advanced mathematics, or art, or creative writing, and thus draw superior students interested in their special program. Though we are currently short of evaluation of such programs, the informal messages from magnet school students have been largely positive (Berliner & Biddle, 1995).

A final change of setting has been *home schooling* whereby the parents agree to help the student learn necessary facts and master skills in exchange for being allowed to keep their children at home. The growing prevalence of computers in American homes has helped this Home School movement, which began as an attempt by some parents to give their children a religious orientation and background they could not get in the public schools. In the case of parents of gifted students, *home schooling* has been used to allow the child to go forward on his/her own and not be tied to an inappropriate curriculum or educational setting (Kearney, 1999; Ray,1997).

In addition, Kolloff (1997) reports on 11 states that have established a *residential school* for outstanding students at the secondary level. Such schools serve as laboratories for new curriculum and as demonstrations as to what can be accomplished in a favorable educational environment.

The Curriculum Content to Be Developed

The content of the differentiated curriculum for gifted students can also be established by policy at the state level through the acceptance of a uniform course of study developed through the State Board of Education to ensure a common education for students within that state. This uniform curriculum could be the base by which knowledgeable teachers can differentiate the uniform curriculum to meet the needs of gifted students.

The recent spate of statewide testing that has swept the nation has caused many critics to claim that such tests, in fact, determine the curriculum, since teachers will shape their lessons to allow their students to do well on the test given at a statewide level. Thus, the establishment of a policy of End of Course testing at various grade levels in the state may well have the unintended

consequences of directing the nature of what is studied by the threat posed of possible poor student performance, indicting both students and teacher. The gifted student in such circumstances would not likely be challenged by examinations or curriculum targeted at average students and would float through classes instead of being excited by them (Gallagher, Harradine, & Coleman, 1997; VanTassel-Baska, 1995).

Another limitation on what the gifted student can learn can be established through policy directives from the state department of education that the extra lessons that the gifted student may pursue should be tied to the general curriculum of all students at that grade level. If the student would ordinarily learn about the Westward Movement in American history then the enriched curriculum that the gifted student would be expected to learn would have to do with that general topic of the Westward Movement rather than have the teacher propose adventures in outer space or microbiology as the extra lessons that the gifted student might experience.

There are certainly many content options still available to the teacher. For example, a cluster of gifted students may study the long-term implication for America of the Lewis & Clark expedition, while other students learn about the expedition itself. Still there are clear boundaries set by these policies that the differentiated curriculum must be tied to the general curriculum. States that have differentiated curriculum tied to the general curriculum, rather than the teachers' options for extra instruction, have reduced student and teacher options.

What Skills Should the Gifted Student Master?

One of the most common goals for educators of gifted students has been the enhancement of creativity and those skills that lead to creativity. Csikszentmihalyi and Wolfe (2000) define creativity as "an idea or product that is original, valued and implemented" (p. 81). How can public policy enhance the development of student skills necessary to create new ideas and products? Public policy may not easily enhance student creative thought, but a number of observers believe that public policy can and does *inhibit* the development of creativity. The introduction of "content standards," the use of "high stakes" testing, and the rewards and punishments for meeting minimum standards for teachers and administrators all seem to fly in the face of a school environment that could enhance the creative abilities of students. Educators of gifted students want the child to think diversely, come up with original ideas, and mull over alternative solutions. For example, Cropley and Urban (2000) present some of the "open learning style" urged upon teachers:

- Offering meaningful enrichment of the children's perceptual horizons.
- Enabling self-directed work, allowing a high degree of initiative, spontaneity, and experimentation without fear of sanctions against incorrect solutions, errors or mistakes.
- Encouraging and accepting non-conformist behavior and the adaptation of original ideas.
- Reducing stress on achievement and avoiding negative stress by introducing playful activities. (p. 495)

It is hard to imagine many teachers facing "end-of-grade" tests, and either rewards or censures based on their students' performance on standard tests, wanting to follow those ideas, particularly since the "open learning style" would take away necessary time that they feel the students need to prepare for such tests. This is surely an unintended consequence of these "high stakes" testing, but a consequence it clearly seems to be. If we are serious about enhancing creativity we need to design strategies to combine these educational goals of meeting standards and stimulating original thought (Csikszentmihalyi, 1996).

We have often professed to believe that the gifted student should be able to think for himself/herself and should be an active problem solver if not problem creator but do we endorse

those policies that enhance such innovation? There have been numerous attempts to enhance creative thinking and problem solving through instructional methodology.

One of the increasingly popular instructional strategies being used in American education is *problem-based learning* (PBL) (Barrows, 1988). This PBL approach is a distinct departure from the didactic lectures and reading often used in our schools and universities. There are three critical features to the PBL approach (Stepien, Gallagher, & Workman, 1993):

- **Learning is initiated with an ill-structured problem.** This is one in which the solution to the problem is *not* embedded in the statement of the problem itself as would be true in an arithmetic reasoning problem.
- **The student is made a stakeholder in the situation.** The student may be asked to play the role of a legislator or scientist forced to make a decision about the situation.
- **The instructor plays the role of metacognitive coach.** Helps guide the student in his/her search for important knowledge by helping with organization of information.

This PBL approach appears to heighten student interest and motivation without losing content mastery for the subject matter (Gallagher & Stepien, 1996). Since students of varying ability levels can respond to the problem at various intellectual levels, it allows for challenge to gifted students in the general education classroom without losing the interest of other students. The one thing not in its favor is that PBL approach takes time, as do other approaches to creative thinking. Will the teacher be able to "afford" the time taken away from student preparation for testing?

The Renzulli Enrichment Triad (Renzulli & Reis, 1985) is another instructional methodology designed to help students become more productive thinkers. The three stage approach is to (a) introduce students to major topics, (b) provide students with methods and skills for finding answers, and (c) take a real problem and conduct an independent investigation using skills learned in stage 2. The full implementation of these innovative programs has been hindered by the limited teacher preparation available to master these instructional strategies.

Support Services for Gifted Students

Teachers are often admonished to be professionals, but one of the characteristics of professionals is that they have a support team to help them. Lawyers have paralegals and secretarial help. Physicians have nurses, laboratories, technicians, etc. to help with diagnosis and treatment of patients. In contrast, teachers are often left to their own devices and are often their own assistants and secretaries. An appropriate support team for teachers of the gifted would mean, at least, the availability of a school psychologist to help with assessment and available consultation by content specialists on differentiated curricular for particular subjects.

Support systems do not happen by accident, they have to be planned. Budget restrictions and limited administrative imagination mean that such support systems lie in the future for most educators of gifted students (see section on Professional Support Systems).

Accountability

One of the most persistent reform movements in education in the United States has been that of accountability. A central question in this endeavor is, "Do the schools achieve the instructional goals that they set for themselves?" Since there is strong suspicion in the minds of many that the schools do not achieve the instructional goals for its students, a complex system of testing is often mandated to determine the achievement of students in various content fields (mathematics, history, etc.) (Callahan, 2000). Aside from the unwarranted assumption that student

performance is the "exclusive" responsibility of the school, instead of the psychosocial-cultural and economic worlds in which they exist (Evans, 1999; Gallagher, 1998), such broad scale attempts at evaluation must also assume common educational goals across schools and districts. Gifted students rarely have difficulty with the tests themselves, but the tests force the teacher to teach what is on the tests and that can eliminate interesting conceptual adventures for the bright student who has long ago mastered the basic curriculum.

Federal Policy for Gifted (pre 1990)

In 1972, a piece of legislation (PL91-230) called for a status report on gifted and talented students in the United States. The results of that review were published in what was known as the Marland Report, named for the then Commissioner of Education, Sidney Marland. Among other points made in the report were the following.

1. Existing services to the gifted do not, in general, reach a large number of students, and significant sub-populations (such as minorities and disadvantaged) are strikingly underserved.
2. Special programming for the gifted is a low priority at all levels of government.
3. The federal role in services to the gifted is all but nonexistent.
4. An enormous individual and social loss exists because the talents of the gifted are undiscovered and undeveloped.

As a result of this report a small Office of Gifted and Talented was established in the U.S. Office of Education with very little funding. There were some efforts made to create a state grant program for gifted in the late 1970s, but the Congress never passed it.

In the Reagan era, the federal interest was diverted to block grants to states, and small programs such as the Gifted and Talented were abandoned and the Office of Gifted and Talented itself was disbanded. Another report by the *National Commission on Excellence in Education* stirred up additional issues with a dramatic presentation, *A Nation At Risk* (Gardner, 1983), which decried the low standards and performance of all students but particularly those of high ability. This encouraged a variety of commission reports and seminars that focused on gifted and talented students, but with little practical result.

There is a striking contrast between federal policies established for children with disabilities and those for gifted students, despite their both being identified as exceptional children. The Individuals with Disabilities Education Act (IDEA) directs billions of dollars to fulfill our commitment to a free and appropriate public education for these children (equity), but little is available for children with special gifts (excellence).

The history of the past few decades revealed that only minor legislative action at the national level was taken and that occurred only under threat to the nation and deep concern about our educational systems (Fullan, 1993). After Sputnik, our concern about our educational competition caused a major investment in the National Defense Education Act that spent over a billion dollars in improving secondary education in mathematics, foreign languages, and science. Billions more were spent from the National Science Foundation, which funded such long-term curriculum development projects as the Physical Science Study Committee (PSSC), the Biological Sciences Curriculum Study (BSCS), the Chemical Bond Approach (CBA), and many others (Goodlad, 1984). Although these programs were not directly related to gifted and talented students, the rise in the conceptual level of these various content fields, as a result of these projects, proved to be quite stimulating to gifted students.

Finally the Jacob K. Javits Gifted and Talented Students Education Act of 1988 (PL 100-297) was passed honoring the New York Senator who had been a strong supporter of gifted education. This law established a National Research Center on Gifted and Talented, and a demonstration program focusing on gifted students from low economic families and minority families. Again, the funds were minuscule by Washington standards, but at least it gave some level of visibility to efforts to help gifted students.

The Last Decade—Federal Policy

A report on *National Excellence* (Ross, 1993) has revealed the difficult position in which our brightest students are placed in general education. Some of the points made in this report are as follows:

- Gifted and talented elementary school students have mastered from 35% to 50% of the curriculum to be offered in five basic subjects before they begin the school year.
- Most regular classroom teachers make few, if any, provisions for gifted and talented students. These youngsters spend most of their time working on grade-level assignments given to the entire class.
- Among the highest achieving students in the nation, most reported to *Who's Who Among American School Students* that they studied less than 1 hour a day. This suggests that they get top grades on the standard curriculum without having to work very hard.
- Only 2 cents out of every $100 spent on K-12 education in the United States in 1990 supported special opportunities for talented students. (p. 2)

Perhaps we are making too much of the failure to provide resources for gifted students. Is it really that depressing? A recent study looked at 46 third- and fourth-grade classrooms across the country in urban, suburban, and rural settings. In each class, an observer identified a gifted student and a student of average ability and noted the teacher interaction with each student over a 2-day period. The investigators concluded that "little differentiation in the instructional and curricular practices is provided to gifted and talented students in the classroom" (Westberg, Archambault, Dobyns, & Salvin, 1993, p. 139). In this case, the general education classroom is not the "least restrictive environment"; it becomes a "most restrictive environment" because the classroom, in reality, does not provide a differentiated experience for the gifted student.

The TIMSS report (U.S. Department of Education, 1998) stressed the low performance of American students compared with students from other countries. This was particularly true at the twelfth grade level. Even gifted students in the United States enrolled in advanced calculus and physics classes were only able to perform at the level of average students from other countries in these subject areas. Such results lead some observers to wonder if we need more direct social policy enhancing the performance of gifted students (Gallagher, 2000).

Twenty-first Century Policy Issues

There remain a number of serious policy issues that have not been dealt with in the 20th century and remain before us. Four of these will be briefly noted in this section. They are race and its influence on admittance to programs for gifted students, the failure to use acceleration as a meaningful education policy, the absence of an infrastructure or support for programs for gifted students, and the design of parental options.

Race

Perhaps the most significant policy issue facing gifted education at the start of the 21st century is the issue of race. This concern is concisely presented by a Federal Register notice from former Secretary of Education Richard Riley:

> First, the Secretary believes that it is in the national interest to have a better understanding of the reasons for the under representation of some minority groups among top performing students. National Surveys reveal that only about ten percent of the students performing at the highest levels are African-Americans, Latinos, or Native-Americans, even though they make up about one-third of the population. (Federal Register/ Vol. 65, No. 59, March 27, 2000/Notices)

There is considerable evidence, as the notice mentions, that there is underrepresentation of minority students in programs for gifted students, with the exception of Asian students who appear to be over represented in such programs (Colangelo & Davis, 1997).

Why do African American students have such difficulty in qualifying for and joining special programs in gifted education? Rowley and Moore (2002) summarize the arguments and point out two competing explanations. First that African American students are torn between social acceptance by lesser achieving African American peers and in attaining high academic achievement. In this view, a student who may be seeking high academic performance is seen as "acting White" and may interfere with the students' racial identity (Fordham & Ogbu, 1986). A second view looks at a bicultural adjustment of African American students that would allow the students to maintain an African American identity, while engaging in achievement oriented behaviors (Ogbu, 1994). Such biculturality creates confusion and conflict, and results often in less than optimum performance on the part of the minority student. Such biculturality may mean that racial identity for the minority student has little influence in the school setting, but has much more importance in family and neighborhood. The adjustment problems apparently are greatest for African Americans in predominantly White schools (Cook & Ludwig, 1998). It should be commented on how damaging to minority groups, and how incorrect, to believe that high performance and high ability is only a White characteristic, since there is ample evidence that the highest of abilities can be found in every ethnic and racial group (Gallagher & Gallagher, 1994).

The policy that seems to be most relevant to the discovery of minority gifted is the identification procedures that have been used to select students for these special programs. Many children from these minority or culturally different groups do not traditionally do well on traditional IQ tests or aptitude tests. When these tests are the sole measure of determining program eligibility, the consequence is that there are limited numbers of minority students that are becoming eligible for the programs (Ford & Harris, 1990).

Attempts have been made to modify the policy and the rules and standards that have been in place in many communities and states in favor of multiple criteria for determining gifted. One of the policy questions at the state level has been, do the laws and regulations allow for appropriate identification of gifted students from minority groups or economically disadvantaged groups? A 50 state survey (Coleman & Gallagher, 1995) found that the definition of gifted students in the vast majority of states does include special notice of minority groups, and points out the responsibility of the state to make proper identification of gifted students from such groups. So the problem did not exist in state policies, but rather in the implementation of such policies!

Coleman and Gallagher (1995) proposed three ways in which the state could provide help to local districts so that such rules could be followed more faithfully. Support to school districts should include:

1. increased material and financial resources
2. information on appropriate identification and service delivery strategies
3. ongoing technical assistance to aid districts in developing appropriate programs. (p. 275)

These recommendations together with flexible guidelines and effective collaboration between the various stakeholders (e.g., higher education, advocacy groups, educational leaders) should improve the situation substantially. In North Carolina, for example, there had been a complex formula being used to determine eligibility that had previously relied upon scores on achievement and intelligence tests. New legislation was passed in 1996 that specifically attempted to deal with the multifaceted problem as follows:

> Local plans for educating gifted students are to be developed for each school and each plan shall include: screening, identification, and placement procedures that allow for the identification of specific needs and for the assignment of academically or intellectually gifted students to appropriate services. (Article 9B of Chapter 115c General Statistics of North Carolina, 1996)

A number of other states have taken similar action designed to broaden the operational definition of gifted students. As is true with all policies, however, they have to be appropriately implemented at the local level for the policy to be successful in coping with the issue.

Those supporting *equity* (see Margolin, 1996; Oakes 1985; Sapon-Shevin, 1996;) are particularly concerned that many minority students have not had the chance to show what they can do and may be kept out of special services for gifted students because of their limited scores on aptitude tests. In this way, they observe, the majority of high income parents will continue to see to it that their children dominate the special programs.

A significant effort to develop performance tasks to supplement the usual aptitude tests has been carried out with over 4,000 students at primary and intermediate grades (VanTassel-Baska, Johnson, & Avery, 2002). The authors designed both nonverbal and verbal performance tasks that place an emphasis on thinking and problem solving in open-ended formats. Using these measures a substantial number of African American students were identified that would not have been selected through standard measures. The downside to the approach is the difficulty of constructing these performance items, the length of administration of the tasks, and the complexity of scoring them. The authors pointed out that many minority students could be identified with much less effort by merely lowering the screening criterion to the 90th percentile on standard ability measures for students in low income families. An additional problem to be faced is what changes need to be made in the curricula for gifted students who are strong in nonverbal, but not verbal, performance tasks.

One of the most influential trends in education over the past decade has been the move towards *inclusion*. This is a term used in special education describing the proposed integration of children with disabilities with other students in the same classroom. This inclusion philosophy is on the way to replacing the resource room as the primary model for educating children with disabilities (Kirk, Gallagher, & Anastasiow, 2000). Part of the reason for this inclusion movement has stemmed from the overrepresentation of minority children in pull-out programs for children with disabilities, leading to suggestions that they were being discriminated against and given an inferior education. Inclusion would at least put these children in the same environment as the mainstream children (Stainback & Stainback, 1996).

There is a similar push for inclusion of gifted students because of underrepresentation of minorities in separate educational settings for gifted children, again leading to the suspicion that minority students were being kept out of desirable educational experiences (Sapon-Shevin, 1996).

Regardless, there seems to be a trend towards educating gifted student in the regular classroom with help from a consultant teacher or by organizing *cluster groups* (6 to 10 gifted students forming a subgroup in the regular classroom) (Gentry & Owen, 1999).

Minority Prevalence

While there have been numerous efforts to explain the underrepresentation of Hispanic and African American children in programs for gifted students (see Ford & Harris, 1999), it has been curious that there has been a limited interest in trying to explain the overrepresentation of Asian students in such programs, even though the overrepresentation has been as strong as the underrepresentation in the other groups. Kitano and Dijiosia (2002) reviewed the literature on this topic and have pointed out that there really were quite diverse results in the proportion of students identified as gifted, depending upon the Asian subgroup involved. Nevertheless, for some East Asian populations the overrepresentation appeared to be present. This overrepresentation in gifted programs remained true, despite clear evidence of rampant prejudice and discrimination against Asian students in school (Schneider, Hieshima, Lee, & Plank, 1994) and in later adult life where Asians do not earn salaries and promotions commensurate with their educational levels. Kitano and Dijiosia provide the following explanation for this unusual result: "Current explanations for high levels of achievement among some Asian groups point to both cultural values supporting education and the perception that education itself constitutes the major avenue for upward mobility in a society where other avenues appear closed" (p. 80).

The active role of Asian parents in stressing the importance of education and seeing to it that their children do what is required by American schools for high performance is also evident. There is a clear tendency to believe that academic achievement was the outcome of hard effort rather than native ability (Cheng, Ima, & Labovitz, 1994). For all minority groups their presence or absence in gifted programs seem due to a variety of sociocultural factors in the various subgroups.

One can only assume that other external factors will continue to influence the education of gifted and talented students. Observers have pointed out that the new "information age" in which we will all be living puts a special premium on learning and knowledge and consequently a stress on the *excellence* side of the issue (Robinson & Clinkenbeard, 1998).

Acceleration

Another policy puzzle is the failure to use the process of *acceleration*, reducing the amount of time the student spends in his or her total educational program. Gallagher (1996) points out that there are numerous ways in which acceleration can be done by skipping a grade, by early admittance to school, or to college, by credit by examination, etc. In some settings there may be policies (rules and standards) established to forbid some of these practices of acceleration such as "early admittance to school" by placing a limit on the life age a child must be before entering school. In other cases, the parent may be told that such a strategy as skipping a grade just isn't done in our school system. Some administrators may imply the existence of a policy, when, in fact, there was no written policy on the subject, only a long tradition within that school system.

There is little doubt that educators have been largely negative about the practice of acceleration, despite abundant research evidence attesting to its viability and the clear advantage of saving a year or two over an educational span for a gifted student that could well add up to a quarter of a century in school (Gallagher, 1996). It is difficult to understand the hostility of many educators to this acceleration strategy. Perhaps it is the threat of many parents asking for this adaptation, perhaps there is a tinge of envy at the presence in the school of an intellect clearly superior to their own. One of the many examples of research results that can be cancelled out in decision making by other variables (political beliefs, tradition) is the process of acceleration. A wide variety of studies have indicated favorable results with the acceleration of bright or advanced

students (Brody & Benbow, 1987; Gallagher, 1996; Hanson, 1980; Stanley & Benbow, 1983), yet there remain strong negative feelings within the school community that ignores such findings.

The 10 year follow-up study of 320 profoundly gifted students (1 in 10,000) discovered that 95% of the sample (reporting at age 23) had taken advantage of various forms of academic acceleration in high school or earlier to make a better match with their needs (Lubinski, Webb, Morelock, & Benbow, 2001). The vast majority of these brilliant students were positive towards their acceleration and attributed some of their later outstanding attainment to the ability to be accelerated. This group reported no serious negative effect on their social life and peer adjustment. It would appear that the brighter the student, the more likely that acceleration might be employed as one strategy to help him/her find an appropriate academic placement. When one considers the manifest advantage of saving a year or two from a potential quarter of a century of schooling, apart from other advantages such as more challenge in the school curriculum, it would seem to be an easy policy to invoke for selected children whose advanced academic credentials and favorable personal adjustment call for such a placement.

In the administrative decisions on this issue, other factors such as administrative convenience and an unwarranted concern about social adjustment (Gallagher, 1994) apparently washed over the clear research findings. It is likely that the scholarly community in higher education, puzzled by these results, overvalues the research knowledge that it possesses and overlooks other social forces that influence decisions in the educational system.

The Nature of Support Systems for Gifted Students

Although the key interaction in gifted education, and in all education, is between teacher and student, we often fail to realize that the effectiveness of that teacher depends, in no small measure, upon the support system that stands behind her/him. One example of an effective support system can be seen in medical practice. When asked if we have a "good doctor," we often say, "Yes," ignoring the fact that what we really have is a good "system" of health care.

The individual physician is backed up by a series of aides and support personnel and institutions such as X-Ray technicians, active medical research laboratories, hospitals, pharmaceutical companies, research, and many communication networks that can be accessed for up-to-date knowledge of various treatments. Without that support system, the individual physician could be considerably less effective in treatment of his/her patients. Physicians sometimes have found themselves in such spots as isolated islands in World War II or in the Korean or Vietnam conflicts and have quickly realized how much they have depended on their major support system (Gallagher, 2000).

All too often, the individual teacher or specialist can feel very alone hoping for a support system that does not exist that would aid him/her in working with gifted children. In programs for children with disabilities (IDEA), federal funds that have been made available have enabled the development of some extensive support systems. These include technical assistance and regional resource centers, demonstration programs, major support for personnel preparation, a national clearinghouse for information, and substantial funds for research and evaluation. All of these can strengthen the effectiveness of the specialist working with children with disabilities if such support systems work as proposed (Kirk, et al., 2000). One of the distinctive differences between special education for children with disabilities and special education for gifted students is the limited support system for gifted education.

Table 2 provides a brief description of the various components of a support system that could be made available to support the programs for gifted education. Most specialists in the field of special education realize that such assistance is rarely available at the present time and would cheerfully settle for one or two elements that might be put in place to provide some level of assistance.

It needs to be stressed that such support systems do not occur by accident, they are deliberately planned and the allocation of resources deliberately made. Perhaps the greatest shortcoming is the absence of support for *personnel preparation*.

Table 2

Components of Quality Support System

Personnel Preparation	A wide array of personnel preparation efforts in both preservice and inservice staff development should be available for preparing specialists in gifted education.
Technical Assistance	The purpose of technical assistance would be to make available on a systematic basis, knowledge and special skills to personnel on the firing line in delivering services to gifted students.
Research Evaluation	There has to be an investment in investigating special problems related to children with special gifts and talents and in the methods of educating them. Also, there needs to be provisions for evaluating our efforts so that programs are continually improved.
Demonstration Centers	The illustration of exemplary programs and practices tends to emphasize the importance of best practices. Such centers can also be a base for short term training and technical assistance.
Data Systems	We need systems of data collection and display that tells us who is receiving special services and how many are being seen, who is educating them, and how effectively we are doing our work. Planning is difficult without information.
Comprehensive Planning	If we are to anticipate our needs and allocate our scarce resources, we need to have a continuous planning operation devoted to the long-range benefits of our services.
Technology	Rapidly expanding technology needs to be applied to the special needs of the gifted student. Technology can be focused on the child's needs and the needs of professionals for communication on a regular and systematic basis.

Adapted from: Gallagher, J., & Clifford, R. (2000). The missing support infrastructure in early childhood. *Early Childhood Research and Practice* 2(1), 1-24.

Since the preparation of specialists in this area usually results in a small subset of students and faculty in a School of Education in some institutions of higher education, it is unlikely that a personnel preparation program for teachers of gifted students can economically survive without some form of subsidy. In tight budget times, it is doubtful if higher education institutions will enthusiastically add a program of personnel preparation for teachers of gifted students that will add to their budget deficits. Personnel preparation for this specialty then becomes responsibility of state departments of education, professional associations like the NAGC or TAG, and ad hoc arrangements with consultants for short term training at local or regional sites.

Another support system shortage is in the availability of *technical assistance* centers. In Texas, New York, Iowa, and other states, there are regional service centers that schools can call upon for individual consultation or short-term training, but few of these are staffed with personnel specializing in gifted students. When the specialist in gifted education at the local level has a special problem or crisis and does the educational equivalent of calling (911) for emergency help, does anyone answer? All too often the answer is "No."

The current *data systems* in most states fall far short of collecting key data that would aid those planning programs for gifted students. If one wanted to know the answer to simple policy related questions such as: "How many teachers are certified to teach gifted students in this city or state?" "How many more are needed?" The embarrassing response is that "No one Knows," because that data are not being collected on a systematic basis.

When one looks at the available, *research*, *evaluation*, and *demonstration* money, the current source of funds for gifted education at the federal level is the Javits program funded at just over $11 million a year. If such a fund were divided equally among the states it would amount to about $200,000 per state, hardly a princely amount considering the importance of the subject and the cost of first rate research. The National Research Center on the Gifted and Talented which is funded by Javits money, noted earlier, represents one of the few continuing centers to provide some help in this area. As pointed out by Renzulli and Gubbins of the NRC/GT (1997) in a review of research on programs for gifted students, there are several major gaps. These include: (a) evaluation of major models of interventions, (b) evaluating programs for gifted minority students, and (c) translating findings to public policy and educational practice. Those investigators who wish to do research on the education of gifted students must seek private sources of funds, or seek funds from government programs focusing on content areas such as science or mathematics, or from agencies such as the National Institute for Child Health and Human Development that support research on broad areas of child development.

As far as *communication* is concerned, the interests of gifted students are contained in the National Clearinghouse on Disabilities and Gifted Education (http://ericcec.org), which distributes materials upon demand to state and local programs.

Parental Preferences

The choices that parents have had for their gifted children have been limited. It was either the public school to which their child has been assigned or a very expensive private school setting. But there has gradually been an increase of options through a combination of administrative initiatives and legislative options.

The *magnet school* has emerged as an alternative placement for gifted students in those districts where such schools are available. These schools are designed to represent excellence in a given area (e.g., art, mathematics) and students who are particularly interested in that topic can apply for admittance (the school's emphasis acts as a magnet for some students), even though it is not in their attendance area. This allows the student to get an accelerated curriculum in his/her special area of interest.

The issue of *parental vouchers* has been raised by a number of voices. This would allow students to take a payment from their regular school system and apply that to the school of their choice. While the issue of vouchers is still bitterly being fought for children from disadvantaged circumstances as well as gifted students, there appears to be potential advantages for some parents in some settings.

Finally there is the issue of *home schooling*. There currently are over 1 million students receiving their education at home (Ray, 1997). Although home schooling originated with parents who wished to maintain a religious element in their child's education, it now has become an option for many parents of gifted and talented students who have despaired of the public school's ability to meet the needs of their bright students. One of the serious concerns that has been raised about home schooling is whether such a route would deprive the student of social opportunities, but further investigation (Kearney, 1999) has indicated that parents have been active in forming clubs, recreational sports, and other cultural activities.

The increasing ability to use the Internet has made such educational options feasible. No longer is the school the sole gatekeeper to knowledge. Internet access opens wide the door to a wide range of knowledge and the student can seek it on his/her time schedule instead of the 50-minute blocks provided by the public school

All of these options have caught the attention of educational administrators who are aware that they are losing some of their better students to these alternatives and who now seek to find ways to entice these gifted students back into an improved public school program.

Major Influences on Policies for Gifted Education

Exceptional Children

There are many forces outside the special field of educating gifted students that, historically, have been influential in the development of policy and programs for gifted students. One of these forces has been the link between gifted students and children with disabilities with both groups being combined under the term *exceptional children*. Exceptional children have been defined as youngsters so different from the average student of the same age that they require special education services and programs (Kirk, et al., 2000). This means that whenever many states passed legislation dealing with *exceptional children*, those provisions often included gifted students as well.

Sam Kirk, when he established the Institute for Research on Exceptional Children at the University of Illinois in 1954, included "gifted" in his definition of exceptional children in his pioneering textbook, *Educating Exceptional Children* (Kirk, 1962). Other authors of texts on exceptional children followed suit (Hallahan & Kaufmann, 1978; Meyen, 1982) and when universities offered courses in exceptional children, gifted students were included in those courses. When there were changes in state legislation, or in the budget for exceptional children, those changes influenced the status of gifted students as well. These were usually favorable changes, since the budget for children with disabilities has shown steady increases in past years.

Sputnik

The clearest impact on gifted students in the past century, though, came with the launching of Sputnik, the Russian initiative in space exploration. The discovery that the Soviet Union was ahead of the United States in an important scientific discovery shook the American society and American education to the core and there were numerous efforts to provide financial support to strengthen the dimension of excellence in American education, particularly in science and

mathematics. This effort lasted a decade or more before interest was shifted to the plight of poor children. American education has had a hard time focusing on more than one major priority at a time.

Excellence Movement

Two decades later there was another movement towards the excellence side of the policy argument about what was called the Excellence Movement. This effort also depended upon some bad news about American education sufficient to upset people enough so that they would shift priorities again. Some unfavorable comparisons of American student performance versus students of other countries were used to fuel this movement (Stevenson, Lee, & Chen, 1994; U.S. Department of Education, 1998), as was data from student performance on the NAEP (National Assessment of Educational Progress) that revealed poor performance on tests of educational attainment. A number of professional associations also developed high standards for content mastery that helped to fuel the excellence movement.

COOL Versus HOT Problems

One problem noted by those advocating for policy for educating gifted students has been that it fits into the category of COOL problems in our society. There are HOT problems and COOL problems in public policy (see Table 3). The hot problems are those that call out for immediate action. Problems like violence and drugs in the schools, national defense, finding effective education for children with disabilities, etc. are ones that the public is not willing to wait upon, so such problem areas receive priority in the allocation of scarce resources.

Table 3 indicates the COOL problems that are also important ones requiring societal action, but not necessarily *now*, ones in which it seems possible to wait. They don't seem to fit the characteristic of *crisis* that would motivate a quick action and high budget priority. For the cool policy issues, the money often seems to run out before these issues are considered and that has been the consistent fate of programs for gifted students at both state and federal levels.

Options for Policy Makers

Whenever decision makers wish to consider what various courses of action might be taken in gifted education, a type of decision matrix as shown in Figure 1 could be considered. In this matrix, there are a variety of options that can be presented and also a series of criteria that can be used to help the decision maker to decide among the options.

The options presented here include a straight subsidy for program adjustments for gifted students, or funding the personnel preparation for general educators, or for specialists in gifted education. It could include a voucher to parents, which provides resources that would allow them to make their own choices among the options that they are considering. On the other hand, the options might include establishing a special school to educate those students with special skills in math and science, or summer enrichment programs. A number of states have established such summer programs as Governor's Schools.

Finally, an enlightened state legislature might consider what could be established in terms of a support system for teachers, or a support infrastructure for the schools, one element of which would be support for programs for gifted students.

Table 3

Public Policy: Cool vs. Hot Problems

Cool Policy Problem (We should act sometime.)	**Hot Policy Problem** (We must act immediately)
Air and water pollution	Violence in the schools
Mass transit	Children with disabilities
Children with gifts and talents	National Defense
Universal Health Care	Cancer
Global warming	Heart disease

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OPTIONS	COST	PERSONNEL NEEDS	TRACK RECORD	PUBLIC ACCEPTANCE	AGENCY SUPPORT	OTHER
Subsidize Gifted Programs						
Subsidize Personnel Preparation for Gifted						
Support Parental Vouchers						
Math & Science School						
Summer Programs, Governor School						
Support Infrastructure						
Status Quo						

Figure 1. Decision matrix—gifted education.

In each of these options, one can calculate the various costs involved, the number and type of personnel needed to carry out the option, and review the track record of each of these options. Some options may have a past history in other places, and we can report what that history tells us. Are these options acceptable to the public or are there strong negative feelings about some of them? Some people have expressed some negative feelings about the voucher option, for example. Certainly a political figure would want to know the attitude of the public or some segments of that public, before they commit themselves to a particular strategy or option.

Finally, if the public schools are the agency that is expected to put this option into effect, how do the education leaders feel about it? With all of this information available to the decision maker, some reasonable choice could be expected. All too often the decision makers have to commit themselves to a particular option before all of the necessary information is available.

What New Policies Are Needed for the Appropriate Education of Gifted Students?

This discussion about policy and gifted students and their education will end by considering what improvements might be brought about through changes or additions to current policy.

These recommendations can be divided into the five major segments of the program; Identification, Placement, Differentiated Programming, Program Evaluation, and Professional Support Systems.

Identification

There is general agreement in the professional community that we should abandon the single dimension of eligibility such an IQ test score, and adopt a multidimensional approach. This would allow youngsters who have outstanding talent and high motivation, but only moderately high aptitude scores to become a part of the program.

Policy. This would mean changing any existing standards that didn't reflect the multidimensional approach, and the specification of just what the dimensions are that should be included and how they would be combined. Also, there would be acceptance of a different set of eligibility standards for different programs, such as accelerated mathematics as opposed to creative writing. These changes would likely appear in Administrative Rules and Regulations, and some consensus on this language could be pushed by organizations such as TAG or NAGC.

Placement

As noted earlier, the placement of gifted students in such programs as International Baccalaureate or Advanced Placement programs should be done based upon the total profile of the student. This means that there is an increased possibility of including rural or minority students who are highly motivated and want to participate. Since it is clear that measured aptitude is not merely a matter of scores on particular tests but reflects larger societal opportunities or restrictions, we would not expect that changing these identification policies would automatically greatly increase the level of participation by minority gifted, since they have many other societal barriers to the full use of their talents.

Policy. It should be made clear through various professional standards that there is the expectation for a diversity of participation in these special programs and that local schools would likely be asked to explain why there isn't cultural diversity if such turns out to be the case. The

Office of Civil Rights has sensitized local school systems to set up rules of their own about diversity of participation in special programs.

Differentiated Programming

There is a general professional consensus that the effectiveness of the programs for gifted students depends upon the degree to which there is systematic differentiation of the content and skills being required of the student (Shore & Delcourt, 1996). It is also clear that there are a relatively thin number of such programs available because the production of special curricular units requires time and efforts of multiple persons and this requires an allocation of resources that are not often available to the specialists in this field (VanTassel-Baska, Bass, Reis, Poland, & Avery, 1998).

The key to needed policy can be seen in the impact the Javits program with its federal grants has had on this issue. Many of the existing and respected materials have been produced by Renzulli and Reis (1985), VanTassel-Baska (1997), and Gallagher and Stepien (1996). Two were supported on a multiyear basis by the Javits program. NAGC has also supported the development of a new Parallel Curriculum by Tomlinson et al. (2002).

Policy: There is a clear need for a much-increased level of support for the development of differentiated curricula at various age levels. This would mean either substantially increasing the funding for the Javits program and/or greater support for state initiatives in this direction, either by states themselves or through the federal government providing funds that would allow the states to take such initiatives.

Program Evaluation

The accountability bug, the effort to hold educators accountable, has not overlooked gifted programs. There have been calls for a greater level of program accountability and this means that special educators in gifted education would be expected to demonstrate in what ways their special program efforts have made a difference to gifted students and their families. Such demands are especially difficult because of the special measurement problems faced when trying to assess gifted students. These would include having to design special performance assessment tasks to demonstrate the advanced conceptual mastery expected of gifted students.

Policy: At the state and local level there should be specific expectations that the programs for gifted students generate periodic reports on their results. This would mean that plans would include measurable objectives and a method to evaluate the plan and services offered and that such evaluation shall focus on improved student performance on high level tasks.

Professional Support Systems

It has been traditional to focus upon the interaction of teacher and gifted student and how to improve that interchange. We tend to ignore the system features of the educational environment and the effect that they have on that teacher-student interchange. We have learned how important such dimensions as *personnel preparation*, *technical assistance*, and *communication networks* can be to the overall quality of our programs. Furthermore, we know that system components do not happen by accident. They must be deliberately designed and supported before they can show positive results.

Personnel preparation is a special problem in the field of gifted education. With the absence of subsidies at the state and federal level, much of the training must be done at the local level or during the summer break. States need to deliberately plan and budget for such efforts that are needed to allow teachers the opportunity to develop certification capabilities while they are on the job.

Technical assistance has proven its worth in special education. There should always be someone available to provide help for the teacher who is stuck in a particular situation and does not know how to resolve these issues or conflicts. Several states have regional support programs such as BOCES in New York and the Area Service Centers in Texas to provide continuing support for school systems in their region. Few of them, however, staff personnel with expertise in the area of the gifted. Adding expertise in gifted education should be one of the goals of the regional service programs in every state.

States should have the capabilities to do *comprehensive planning* and funds set aside for statewide planning for gifted education. Such plans should point out how personnel preparation will be done and where technical assistance expertise is available. Unless there is direction from the public decision makers in a state, it is unlikely to happen because, as noted earlier, gifted is a cool problem.

Data systems are another responsibility of the state and special attention may have to be given to ensure that gifted students are a part of the student count in each school district, as well as giving information on the number of teachers needing certification, etc. Without an adequate data system the planning effort is often hamstrung.

Additional efforts to move new knowledge in a viable *communication network* would be an important support system feature. The development of e-mail and fax has made such district to district and state to district communication much easier. Someone at the state level has to be responsible to see that information about gifted education is put on the network on a regular and systematic fashion.

Policy. When there are support systems put into place for general education (e.g., personnel preparation, regional service centers, data systems), there should be explicit expertise in these support system elements devoted to gifted education. We know that the needs of gifted students are often overlooked in such systems (gifted is a "cool" problem) and must be mandated if it is to happen. Thus there should be provisions in the state education budget for funds for preservice and inservice personnel preparation for specialists in gifted education and a visible presence in communications and data systems for gifted education.

As we have pointed out, support systems should be available for all of general education. This special plea to pay attention to gifted education is not meant to suggest that these support elements should be available exclusively for gifted students, but merely to ask that the special needs of gifted students should be specifically included along with that of general education.

We started with the puzzlement of the Jenkins and Alvarez's families about educational policy and how it affected their gifted child. One of the key discoveries is that old policies can be like unwelcome houseguests who overstay their visit, but continue to stay around until someone tells them to go. Once the rules are on the books (such as IQ scores determining eligibility for special programs), they remain in force until someone removes them. Some periodic review of existing policies for gifted students by professional organizations like TAG and NAGC would seem to be an appropriate reaction to this discovery otherwise parents and their bright children will continue to run the risk of getting treated inappropriately because of rules or laws that have been overtaken by events but still remain in place.

Last Words

The ambivalence of the American society to gifted students is reflected in the incomplete and sometimes contradictory educational policies reviewed in this monograph. The equity-excellence struggle to help these students reach their potential continues and so progress has to be made on a piecemeal basis when and where the opportunities arise. The increasing demands of a complex technological society may finally settle the issue, since we will need all the intellect we can squeeze from the society to meet the challenges of the 21st century.

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University of Connecticut
2131 Hillside Road Unit 3007
Storrs, CT 06269-3007
www.gifted.uconn.edu

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The National Research Center on the Gifted and Talented Research Teams

University of Connecticut

Dr. Joseph S. Renzulli, Director
Dr. E. Jean Gubbins, Associate Director
Dr. Sally M. Reis, Associate Director
University of Connecticut
2131 Hillside Road Unit 3007
Storrs, CT 06269-3007
860-486-4676

Dr. Del Siegle

University of Virginia

Dr. Carolyn M. Callahan, Associate Director
Curry School of Education
University of Virginia
P.O. Box 400277
Charlottesville, VA 22904-4277
804-982-2849

Dr. Mary Landrum
Dr. Tonya Moon
Dr. Carol A. Tomlinson

Yale University

Dr. Robert J. Sternberg, Associate Director
Yale University
Center for the Psychology of Abilities, Competencies, and Expertise
340 Edwards Street, P.O. Box 208358
New Haven, CT 06520-8358

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